

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Currently amended) A composition comprising a MTB39 antigen (SEQ ID NO:12 or 14) or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and a MTB32A antigen (SEQ ID NO:2 or 4) or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, wherein at least one amino acid corresponding to position 183 of SEQ ID NO:4 or position 208 of SEQ ID NO:2 in the MTB32A antigen (SEQ ID NO:2 or 4) has been substituted by a different amino acid.

2. (Original) The composition of claim 1, comprising a MTB39 antigen (SEQ ID NO:12 or 14) or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and a polypeptide comprising at least 195 amino acids from the N-terminus of a MTB32A antigen (SEQ ID NO:2 or 4) from a *Mycobacterium* species of the tuberculosis complex.

3. (Original) The composition of claim 2, further comprising a polypeptide comprising at least about 132 amino acids from the C-terminus of MTB32A antigen (SEQ ID NO:2 or 4) from a *Mycobacterium* species of the tuberculosis complex.

4. (Original) The composition of claims 1, 2, or 3, wherein the antigens are covalently linked, thereby forming a fusion polypeptide.

5. (Original) The composition of claim 4, wherein the fusion polypeptide has the amino acid sequence of MTB59F (SEQ ID NO:20).

6. --- (Canceled)

7. (Original) The composition of claim 4, wherein the fusion polypeptide has the amino acid sequence of MTB72FMutSA (SEQ ID NO:18).

8. (Original) The composition of claim 6 or 7, further comprising BCG.

9. (Original) The composition of claim 6 or 7, further comprising at least one additional antigen from a *Mycobacterium* species of the tuberculosis complex, wherein the antigen is selected from the group consisting of MTB8.4 antigen (SEQ ID NO:22), MTB9.8 antigen (SEQ ID NO:24), MTB9.9 antigen (SEQ ID NO:27), MTB40 antigen (SEQ ID NO:29), MTB41 antigen (SEQ ID NO:31), 38-1 (SEQ ID NO:35), TbRa3 (SEQ ID NO:37), 38 kD (SEQ ID NO:39), DPEP (SEQ ID NO:41), TbH4 (SEQ ID NO:43), DPPD (SEQ ID NO:45), MTB82, Erd14, ESAT-6 antigen (SEQ ID NO:33), MTB85 complex antigen, or  $\alpha$ -crystalline antigen, or an immunogenic fragment thereof.

10. (Original) The composition of claim 6 or 7, further comprising an adjuvant.

11. (Original) The composition of claim 4, wherein the antigens are covalently linked via a chemical linker.

12. (Original) The composition of claim 11, wherein the chemical linker is an amino acid linker.

13. (Original) The composition of claim 1, further comprising at least one additional antigen from a *Mycobacterium* species of the tuberculosis complex, wherein the antigen is selected from the group consisting of MTB8.4 antigen (SEQ ID NO:22), MTB9.8 antigen (SEQ ID NO:24), MTB9.9 antigen (SEQ ID NO:27), MTB40 antigen (SEQ ID NO:29), MTB41 antigen (SEQ ID NO:31), 38-1 (SEQ ID NO:35), TbRa3 (SEQ ID NO:37), 38 kD (SEQ ID NO:39), DPEP (SEQ ID NO:41), TbH4 (SEQ ID NO:43), DPPD (SEQ ID NO:45), MTB82, Erd14, ESAT-6 antigen (SEQ ID NO:33), MTB85 complex antigen, or  $\alpha$ -crystalline antigen, or an immunogenic fragment thereof.

14. (Original) The composition of claim 1, further comprising an adjuvant.
15. (Original) The composition of claim 14, wherein the adjuvant comprises QS21 and MPL.
16. (Original) The composition of claim 14, wherein the adjuvant is selected from the group consisting of AS2, ENHANZYN, MPL, 3D-MPL, IFA, QS21, CWS, TDM, AGP, CPG, Leif, saponin, and saponin mimetics.
17. (Original) The composition of claim 1, further comprising BCG or pVac.
18. (Original) The composition of claim 1, further comprising an NS1 antigen or an immunogenic fragment thereof.
19. (Original) The composition of claim 1, wherein the *Mycobacterium* species is *Mycobacterium tuberculosis*.
- 20-69. (Canceled)
70. (Currently amended) An isolated MTB32A polypeptide from a *Mycobacterium* species of the tuberculosis complex, wherein at least one amino acid ~~in the active site triad~~ corresponding to position 183 of SEQ ID NO:4 or position 208 of SEQ ID NO:2 of the MTB32A antigen (SEQ ID NO:2 or 4) has been substituted by a different amino acid.
71. (Canceled)
72. (Currently amended) The polypeptide of claim ~~71~~ 70, wherein an alanine residue has been substituted for the serine residue.
73. (Original) A polypeptide of claim 72, wherein the polypeptide comprises an amino acid sequence of SEQ ID NO:6.
74. (Original) A composition comprising the polypeptide of claim 70.

75. (Original) A fusion polypeptide comprising the polypeptide of claim 70.

76-82. (Canceled)

83. (Currently amended) An isolated polypeptide encoding a fusion polypeptide comprising a MTB39 (SEQ ID NO:12 or 14) antigen from a *Mycobacterium* species of the tuberculosis complex, and an antigen comprising at least 195 amino acids from the N-terminus of a MTB32A antigen (SEQ ID NO:2 or 4) from a *Mycobacterium* species of the tuberculosis complex, wherein ~~an amino acid of the active site triad of~~ at least one amino acid corresponding to position 183 of SEQ ID NO:4 or position 208 of SEQ ID NO:2 in the MTB32A antigen (SEQ ID NO:2 or 4) has been substituted by a different amino acid.

84. (Canceled)

85. (Original) The polypeptide of claim 83, wherein an alanine residue has been substituted for the serine residue.

86. (Original) A composition comprising the polypeptide of claim 83.

87. (Original) A fusion polypeptide comprising the polypeptide of claim 83.

88. (Original) A fusion polypeptide comprising an amino acid sequence of SEQ ID NO:18.